REMARKS

Claim 20 has been amended to specify that when the immunostimulatory dinucleotide is C*pG, then C* is selected from 5-hydrocycytosine, 5-hydroxymethylcytosine, N4-alkylcytosine and 4-thiouracil. Claim 42 has been amended to specify that the non-natural pyrimidine nucleoside C* having formula (***I***) is selected from 5-hydrocycytosine, 5-hydroxymethylcytosine, N4-alkylcytosine and 4-thiouracil. Support for these amendments is in the specification as filed at page 13, lines 6-8 and in Figures 23, 24 and 26. Claim 46 has been amended to depend on claim 42. Claims 43-45 and 48-51 have been canceled. No new matter has been added.

Rejection of Claims 20-21, 42-44, 46-48 and 50-51 under 35 U.S.C. §103(a): Schwartz and Chaix

Claims 20-21, 42-44 and 46-48 and 50-51 are rejected as being obvious over Schwartz and Chaix. Schwartz is relied upon as disclosing immunostimulatory oligonucleotide sequences comprising a CpG dinucleotide wherein the cytosine is modified. Chaix is relied upon as teaching oligonucleotides comprising a 3'-3' linker and two accessible 5' ends.

Claims 48 and 50-51 have been canceled, thereby rendering this rejection moot as to those claims. Claims 20 and 42 have been amended to specify that the C* of C*pG is selected from 5-hydrocycytosine, 5-hydroxymethylcytosine, N4-alkylcytosine and 4-thiouracil. Claim 46 has been amended to depend on amended claim 42, thereby incorporating this limitation into claims 46 and 47. Schwartz neither teaches nor suggests these specific modifications and Chaix teaches nothing that remedies this deficiency. Applicants respectfully submit that these amendments overcome this rejection. Thus, Applicants respectfully request that this rejection be withdrawn.

Double Patenting

Claims 42-45, 48 and 49 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 7262286 in view of Chaix. Claims 20 and 41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2 and 4 of U.S. Patent No. 7176296 in view of Chaix. Claims 20-21 and 41-51 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 8, 12, 13, 14 and 18-

20 of U.S. Patent No. 7276489. Claims 20-21 and 41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 7405285. Claims 20-21 and 41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 7427405. Claims 20-21 and 41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 7470674. Claims 20-21 and 41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 7498425.

According to MPEP §804(I)(A), when double patenting exists between an issued patent and an application having a common assignee, "the examiner must determine whether the grant of a second patent would give rise to an unjustified extension of the rights granted in the first patent." The earliest priority date of the pending application is September 26, 2000. US Patents Nos. 7276489, 7405285, 7427405, 7470674 and 7498425 all have earliest priority dates that are after the priority date of the present application. US Patent No. 7,262,286 has an earliest priority date that is the same as the priority date of the present application. Thus, double patenting over any of these issued patents would not give rise to "an unjustified extension of the rights granted in the first patent." Accordingly, Applicants respectfully request that these obviousness-type double patenting rejections be withdrawn.

In contrast, US Patent No. 7176296 has an earliest priority date of May 1, 2000. Without admitting the obviousness of claims 20 and 41 over claims 1, 2 and 4 of US Patent No. 7176296, and solely for the sake of expediting prosecution, Applicants submit herewith a terminal disclaimer over US Patent No. 7176296. Accordingly, Applicants respectfully request that this rejection be withdrawn.

CONCLUSION

In view of the above amendments and remarks, it is believed that claims 20-21 41-42 and 46-47 are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner believes that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned attorney at 781-933-6630.

Respectfully submitted,

Dated: June 16, 2009

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